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EXAMINER

GOODCHILD, WILLIAM J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/663,161	Applicant(s) STAMLER ET AL.	
	Examiner WILLIAM J. GOODCHILD	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 1935.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Claims 3, 5-7 are objected to because of the following informalities: Claims 3 and 5-7 are dependent on a canceled claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 33 is rejected under 35 U.S.C. 102(e) as being anticipated by Jensen, (US Publication No. 2002/0186653).

Regarding claim 33, Jensen discloses the mechanism receives user input specifying an operation to perform on the cluster as a whole [paragraphs 14 and 18, user input as programmed instructions]; and automatically performs the specified operation on one or more of the active routers in the cluster by transforming the specified operation into one or more device-specific operations for each of the one or more active routers [paragraphs 22 and 27].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-6 and 26-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen, and further in view of Arquie et al., (US Patent No. 6,636,239), (hereinafter Arquie).

Regarding claims 1 and 26, Jensen discloses automatically performing the specified operation on one or more of the active routers in the cluster by transforming the specified operation into one or more device-specific operations for each of the one or more active routers [Jensen, paragraphs 22 and 27]; wherein the user input specifies a configuration command for the cluster [Jensen, paragraph 27]; automatically communicating the configuration command to each of the active routers in the plurality of active routers [Jensen, paragraph 27]; further wherein the cluster comprises a first switch device, a plurality of active routers, one or more standby routers, and a second switch device [Jensen, paragraphs 7, 10, lines 18-22, 12 and 13, lines 8-18].

Jensen does not specifically disclose receiving, at a single console control point for a network device cluster, user input specifying an operation to perform on the cluster as a whole. However, Arquie discloses receiving user input at a graphical user interface (GUI) [Arquie, column 4, lines 4-25]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a single console control point for user input in order to allow a user to enter commands.

Regarding claims 3 and 28, Jensen further discloses subscribing a management process to an event bus; subscribing each of the active routers to the event bus; and publishing the configuration command in an event on the event bus [Jensen, paragraph 28].

Regarding claims 4 and 29, Jensen further discloses receiving the event; extracting the configuration command from the event; and presenting the configuration command to a native console [Jensen, paragraph 28].

Regarding claims 5 and 30, Jensen further discloses the configuration command is a configuration load command [Jensen, paragraph 27].

Regarding claims 6 and 31, Jensen further discloses the configuration command is a configuration execution command [Jensen, paragraph 25].

Regarding claim 27, Jensen further discloses the receiving step comprises receiving user input specifying a configuration command for the cluster [Jensen, paragraphs 14 and 18]; and wherein the performing step comprises automatically communicating the configuration command to each of the active routers in the plurality of active routers [Jensen, paragraphs 14 and 18].

6. Claims 7 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen-Arquie as applied to claims 1 and 27 above, and further in view of Raab et al., (US Patent No. 5,751,967), (hereinafter Raab).

Regarding claims 7 and 32, Jensen-Arquie does not specifically disclose the user input is received in a graphical user interface, and further comprising the step of displaying an execution log for the configuration command within the same graphical user interface in which the user input is received.

However, Raab, discloses a graphical user interface with data items populating tables [Raab, column 6, lines 16-20]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a GUI to display information in order to incorporate a user friendly interface.

7. Claims 8-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arquie, and further in view of Jensen.

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Regarding claims 8 and 11, Arquie discloses receiving, at a single console control point for a network device cluster, first user input in a user interface (UI) that identifies a first switch device and a second switch device [Arquie, column 4, lines 4-25 and figure 3], receiving second user input in the UI that identifies a plurality of network elements for a router stack [Arquie, column 4, lines 4-25, figure 3 and column 3, lines 20-25], receiving third user input in the UI that defines at least one first connection of the first device in association with at least one network element in the stack, and at least one second connection of the second switch device in association with the at least one network element in the stack [Arquie, column 4, lines 4-25, figure 3 and column 3, lines 20-25]; and associating the first, second, and third user input in an object [Arquie, column 4, lines 4-25, figure 3 and column 3, lines 20-25]. Arquie does not specifically disclose a cluster, or wherein the cluster comprises a first switch device, a stack consisting of one or more active routers and one or more standby routers and a second switch device. However, Jensen, discloses a cluster [Jensen, paragraph 9, lines 1-18] of network nodes and a network node may comprise a router or a switch [Jensen, paragraph 7, lines 5-7], Jensen further discloses a cluster of routers and switches [Jensen, paragraphs 7, 10, lines 18-22, 12 and 13, lines 8-18]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include clusters of network elements as a subsystem in order to monitor clusters as well as individual network elements.

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Regarding claim 9, Arquie-Jensen further discloses receiving second user input that selects the first access icon [Arquie, column 4, lines 45-65]; generating and displaying a device operational overview [Arquie, column 4, lines 33-46] for devices in the cluster [Jensen, paragraph 9], a device status indicator [Arquie, column 4, lines 33-65], device connection information [Arquie, column 4, lines 33-65], failed connection information [Arquie, column 4, lines 33-65], and a second access icon for accessing information about connections of the first and second switch devices and the stack [Arquie, column 5, lines 27-45 and figure 9 and column 4, lines 55-65].

Regarding claim 10, Arquie further discloses receiving third user input that selects the second access icon [Arquie, column 4, lines 45-65]; generating and displaying a connection operational [Arquie, column 4, lines 45-65] overview for connections of the cluster [Jensen, paragraph 9], wherein the connection operational overview comprises, for each connection of the stack, a connection status indicator and one or more values of attributes associated with the connection [Arquie, column 4, lines 45-65].

Regarding claim 12, Arquie further discloses receiving information specifying that a network element in the cluster has failed [Arquie, column 4, lines 55-65]; based on the cluster object, selecting a substitute network element from among one or more available network elements from the router stack [Arquie, column 4, lines 47-54]; receiving connection configuration information from the identified network element [Arquie, column 4, lines 55-65]; and based on the connection configuration information, re-

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configuring the substitute network element and the first and second switch devices associated with the identified network element, wherein the re-configuring causes the first and second switch devices to change one or more connections from the identified network element to the substitute network element [Arquie, column 4, lines 55-65].

Regarding claim 13, Arquie further discloses creating one or more sets of commands to configure the one or more switch devices [Arquie, column 5, lines 27-45 and figure 9]; and publishing a configuration load event that includes the commands and that targets only the one or more switch devices associated with the identified and substitute network elements [Arquie, column 5, lines 27-45 and figure 9].

Regarding claim 14, Arquie further discloses at each of the one or more switch devices, processing the particular set of commands, wherein processing includes causing the one or more switch devices to change the one or more connections from the identified network element to the substitute network element [Arquie, column 5, lines 27-45 and figure 9]; and at each of the one or more switch devices, publishing a configuration complete event to acknowledge completing the processing of the particular set of commands [Arquie, column 5, lines 27-45 and figure 9].

Regarding claim 15, Arquie further discloses the third user input includes information defining a set of commands used to reconfigure at least one switch device from the plurality of switch devices [Arquie, column 5, lines 27-45 and figure 9].

Regarding claim 16, Arquie further discloses the first, second and third user inputs are stored persistently at a cluster manager [Arquie, column 5, lines 27-45 and figure 9]; and wherein each of the switch devices and the plurality of network elements persistently stores startup configuration information, but does not store the first, second and third user inputs [Arquie, column 5, lines 27-45 and figure 9 and Arquie, column 4, lines 55-65].

Regarding claim 17, Arquie further discloses the second user input comprises information identifying one or more network elements from the plurality of network elements as back-up network elements [Arquie, column 4, lines 55-65 and column 3, lines 50-57].

Regarding claim 18, Arquie-Jensen further discloses the second user input comprises information identifying one or more network elements from the plurality of network elements as stand-by network elements [Jensen, paragraph 10].

Regarding claim 19, Arquie further discloses the step of receiving a fourth user input in the UI that modifies information received in the second and third user inputs [Arquie, column 4, lines 55-65 and column 3, lines 50-57].

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Regarding claim 20, Arquie further discloses the step of receiving a fourth user input in the UI that identifies the at least one network element as removed from the plurality of network elements [Arquie, column 4, lines 55-65 and column 3, lines 50-57].

Regarding claim 21, Arquie further discloses the step of receiving a fourth user input in the UI that disassociates at least one switch device with at least one network element from the plurality of network elements [Arquie, column 4, lines 55-65 and column 3, lines 50-57].

Regarding claim 22, Arquie-Jensen further discloses the first, second, and third user inputs define a logical stack object [Jensen, paragraph 9], wherein the logical stack object is identified by a stack name [Arquie, column 4, lines 55-65 and column 3, lines 50-57] and represents a logical grouping of at least two switch devices and at least one network element [Jensen, paragraph 9].

Regarding claim 23, Arquie-Jensen further discloses the step of receiving a fourth user input in the UI [Arquie, column 5, lines 27-45 and figure 9 and Arquie, column 4, lines 55-65] that requests sending a command to all switch devices and all network elements [Arquie, column 5, lines 27-45 and figure 9 and Arquie, column 4, lines 55-65] represented by the logical stack object [Jensen, paragraph 9].

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Regarding claim 24, Arquie discloses an input mechanism for receiving user input [Arquie, column 4, lines 55-65],

in a logical stack object [Arquie, column 4, lines 55-65 and column 3, lines 50-57]; a second user input [Arquie, column 4, lines 55-65]; and

a third user input that associates at least one switch device from the plurality of switch devices with at least one network element from the plurality of network elements [Arquie, column 4, lines 55-65 and column 3, lines 50-57]; and

an execute mechanism for causing re-provisioning of real network elements that are represented by the logical stack object [Arquie, column 5, lines 27-45 and figure 9 and Arquie, column 4, lines 55-65]. Arquie does not specifically disclose a first user input that identifies a plurality of switch devices, a network device cluster, or identifies a plurality of network elements in the network device cluster. However, Jensen, discloses wherein the user input includes: a first user input that identifies a plurality of switch devices [Jensen, paragraph 9];

that represents the network device cluster [Jensen, paragraph 9];

that identifies a plurality of network elements in the network device cluster [Jensen, paragraph 9].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include clusters of network elements in order to monitor clusters as well as individual network elements.

Regarding claim 25, Arquie further discloses identifying a network element that has failed [Arquie, column 4, lines 55-65]; selecting a substitute network element from among one or more available network elements from the plurality of network elements [Arquie, column 4, lines 45-65]; receiving connection configuration information from the identified network element [Arquie, column 4, lines 45-65]; and based on the connection configuration information, re-configuring the substitute network element and the one or more switch devices associated with the identified network element, wherein the re-configuring causes the one or more switch devices to change one or more connections from the identified network element to the substitute network element [Arquie, column 4, lines 55-65].

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen as applied to claim 33 above, and further in view of Raab.

Regarding claim 34, Jensen does not specifically disclose the graphical user interface suitable for receiving user input; and a displayable execution log within the graphical user interface, capable of displaying a configuration command. However, Raab, discloses a graphical user interface with data items populating tables [Raab, column 6, lines 16-20]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a GUI to display information in order to incorporate a user friendly interface.

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen-Arquie as applied to claim 1 above, and further in view of Hsu et al., (US Publication No. 2001/0021198), (hereinafter Hsu).

Regarding claim 35, Jensen-Arquie does not specifically disclose the first and second switch devices are associated with different networks.

However, Hsu discloses multiple switches connected to different networks [Hsu, figure 4, items 420, 415, paragraph 16]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate multiple switches connected to different networks in order to provide for a backup switch in case of failure.

Response to Arguments

10. Applicant's arguments filed 03/21/2008 have been fully considered but they are not persuasive.

A - Applicant argues "Claim 1 recites, inter alia, a cluster comprising a first switch device, a plurality of active routers, one or more standby routers, and a second switch device. Conversely, Jensen only discloses a single switch 110."

A – Jensen discloses multiple network nodes [paragraph 12, lines 10-14, Although a certain number of network nodes have been illustrated as part of system 100, it can be appreciated that any number of network nodes may be implemented as part of system

100 and still fall within the scope of the invention.]. Jensen defines network node as a router and / or a switch [paragraph 7, lines 5-6, a network node may comprise, for example, a router, switch ...].

11. Applicant's arguments with respect to "an approach in which a single console control point for a network device cluster receives user input specifying an operation to perform on the cluster as a whole" have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM J. GOODCHILD whose telephone number is

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(571)270-1589. The examiner can normally be reached on Monday - Friday / 8:00 AM - 4:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WJG
05/19/2008

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145